



International Directory Network (IDN) WGISS-53 Summary

- CEOS/IDN Collaborations

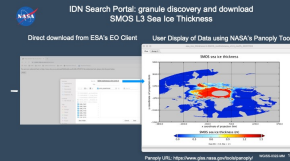
- ESA/FedEO Updates: Added FedEO CMR Provider ID for FedEO consortium
- NOAA TPIO and GCMD keywords: Added new Ocean keywords
- NOAA GHRSSST Datasets: Added CMR NOAA_NCEI GHRSSST Provider ID for CWIC consortium
- ChinaGEOSS, NRSCC, and CCMEQ Datasets: Added NRSCC and New CMMEQ CMR Provider IDs CWIC consortium

- IDN Upgrades

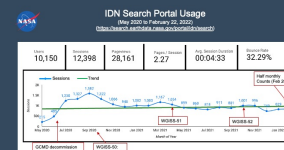
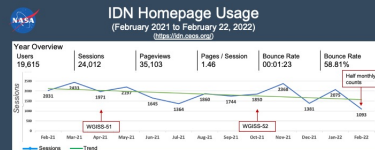
- IDN Search Portal: granule discovery and download
- CMR Tagging replaced by Consortiums: to identify CWIC, FedEO, CEOS, and GEOSS.
- CMR/DraftMMT Progressive Update Validation
- Platform Facets: Added New Platform Top-level "BASIS" group.
- UMM-C OrbitParameter and MetadataSpecification: Added orbit Unit and Footprint sub-fields to the schema.
- IDN Search Portal Cloud Datasets refinement

- IDN Metric

- IDN Homepage Usage
- IDN Search Portal
- Draft Metadata Management Tool (MMT)



- 6 new Keywords were added to the "Basis" level:
 - Air-based Platforms
 - Land-based Platform
 - Living Organism-based Platforms
 - Other
 - Space-based Platforms
 - Water-based Platforms





International Directory Network (IDN) Report

CEOS WGISS-53
Remote Meeting, March 22, 2022

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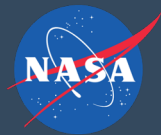


Outline

- CEOS/IDN Collaborations
 - ESA/FedEO Updates
 - NOAA TPIO and GCMD keywords
 - NOAA GHRSSST Datasets
 - ChinaGEOSS, NRSCC, and CCMEQ Datasets
- IDN Upgrades
 - IDN Search Portal: granule discovery and download
 - CMR Tagging replaced by Consortiums
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 - Platform Facets
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- IDN Metric
 - IDN Homepage Usage
 - IDN Search Portal
 - Draft Metadata Management Tool (MMT)



I. CEOS/IDN Collaborations



ESA/FedEO Updates

- ESA/FedEO dataset records were re-ingested into CMR/IDN:
 - 163 ESA dataset records were ingested into IDN Provider ESA
 - IDN Search Portal (all ESA dataset records):
[https://search.earthdata.nasa.gov/portal/idn/search?fdc=ROSCOSMOS!ESA%2FESRIN&fpj=FedEO&as\[organization\]\[0\]=ESA/ESRIN&as\[project\]\[0\]=FedEO](https://search.earthdata.nasa.gov/portal/idn/search?fdc=ROSCOSMOS!ESA%2FESRIN&fpj=FedEO&as[organization][0]=ESA/ESRIN&as[project][0]=FedEO)
 - 53 DLR and 45 VITO dataset records were ingested into new IDN Provider FEDEO
 - IDN Search Portal (FedEO DLR dataset records):
<https://search.earthdata.nasa.gov/portal/idn/search?fdc=DE%2FDLR>
 - IDN Search Portal (FedEO VITO dataset records):
<https://search.earthdata.nasa.gov/portal/idn/search?fdc=VITO>
 - The re-ingest of the ESA/FedEO records was done to support the new CMR Consortiums feature (describe in IDN Upgrades section of presentation).
- IDN has automated CMR ingest between FedEO and IDN.



Reconciling NOAA TPIO and GCMD keywords

- The GCMD/IDN Team has been working with the NOAA Technology, Planning, and Integration for Observation (TPIO) Team and the USGS to align their keywords more closely with the GCMD Keywords.
- There are several science keywords sets that will go through cross-team review. These include: **Atmosphere**, **Oceans**, Sun-Earth Interactions, Terrestrial Hydrosphere, Cryosphere, Solid Earth, Human Dimensions, Land Surface, Biosphere, Spectral/Engineering, Agriculture, Climate Indicators
- The Ocean keywords were released on October 29, 2021 as version 12.0. See <https://wiki.earthdata.nasa.gov/pages/viewpage.action?pageId=226525497>



NOAA GHR SST Datasets

- NOAA_NCEI CWIC GHR SST dataset records have been re-ingest into a new IDN Provider GHR SST CWIC to support CMR Consortium feature.
 - 120 NOAA_NCEI CWIC GHR SST dataset records:
<https://search.earthdata.nasa.gov/portal/idn/search?q=GHR SST&fdc=NOAA%20National%20Centers%20for%20Environmental%20Information>
- IDN with periodically update all the NOAA NCEI dataset records from the NOAA Web Accessible Folders (WAF).
- IDN Search Portal query for all NOAA_NCEI collections:
https://search.earthdata.nasa.gov/portal/idn/search?q=NOAA_NCEI



ChinaGEOSS, NRSCC, and CCMEIO Datasets

- ChinaGEOSS and NRSCC have been re-ingested into new IDN Provider NRSCC to support CMR Consortiums feature. IDN Search Portals offerings:
 - 5 ChinaGEOSS dataset records:
 - <https://search.earthdata.nasa.gov/portal/idn/search?fdc=CN/ChinaGEOSS>
 - 24 NRSCC dataset records:
 - https://search.earthdata.nasa.gov/portal/idn/search?q=NRSCC_GLASS
- CCMEIO, also, have been re-ingest into new IDN Provider CCMEIO
 - 3 CCMEIO dataset records:
 - <https://search.earthdata.nasa.gov/portal/idn/search?fdc=CA/NRCAN/ESS/GC/CCMEIO>



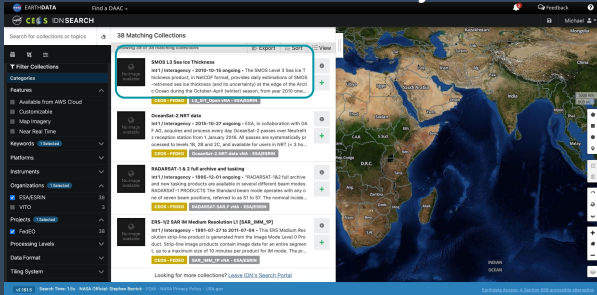
II. IDN Upgrades



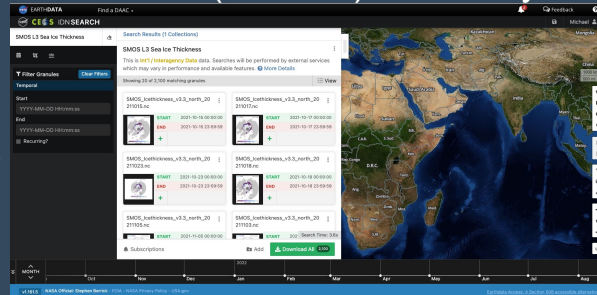
IDN Search Portal: Granule Discovery and Download Summary

ESA/FedEO SMOS L3 Sea Ice Thickness

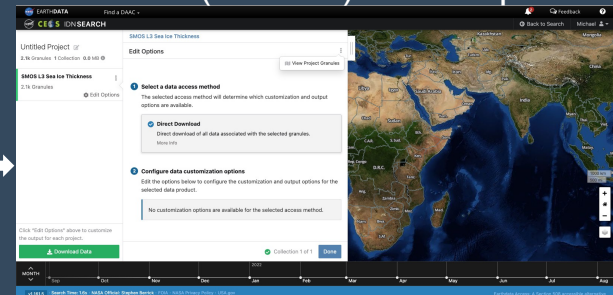
Dataset Discovery



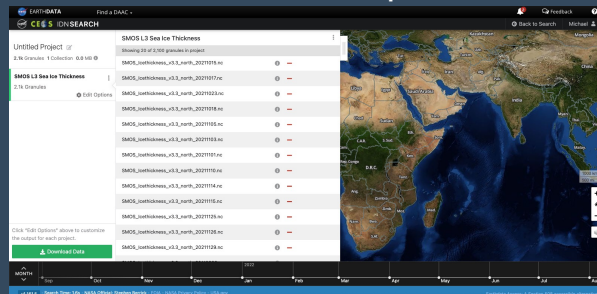
Granule (data file) Discovery



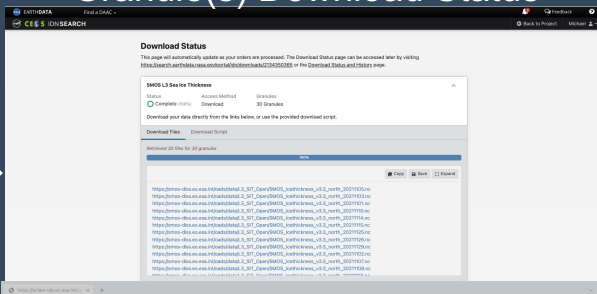
Granule (data file) Order Options



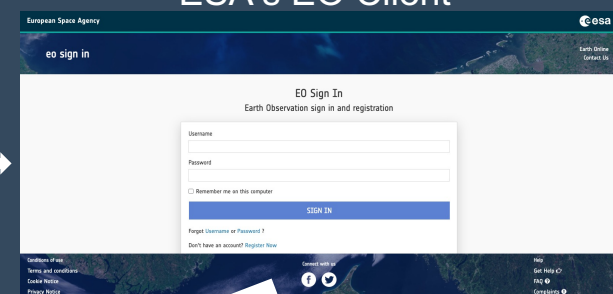
Order Selection Options



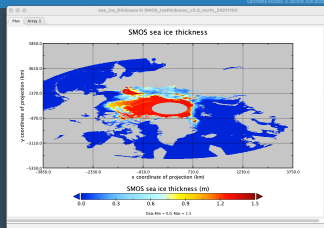
Granule(s) Download Status



ESA's EO Client



User Display of Data using NASA's Panoply Tool



Direct download from
ESA's EO Client



IDN Search Portal: Granule Discovery and Download ESA/FedEO SMOS L3 Sea Ice Thickness (continue)

Dataset Discovery

38 Matching Collections

Showing 38 of 38 matching collections

SMOS L3 Sea Ice Thickness
Int'l / Interagency - 2010-10-15 ongoing - The SMOS Level 3 Sea Ice Thickness product, in NetCDF format, provides daily estimations of SMOS-retrieved sea ice thickness (and its uncertainty) at the edge of the Arctic Ocean during the October-April (winter) season, from year 2010 onwards.
CEOS - FEDEO L3_SIT_Open vNA - ESA/ESRIN

OceanSat-2 NRT data
Int'l / Interagency - 2016-10-27 ongoing - ESA, in collaboration with GA F40, acquires and processes every day OceanSat-2 passes over Neutrit z reception station from 1 January 2016. All passes are systematically processed to levels 1B, 2B and 2C, and available for users in NRT (< 3 hours).
CEOS - FEDEO OceanSat-2.NRT.data vNA - ESA/ESRIN

RADARSAT-1 & 2 full archive and tasking
Int'l / Interagency - 1996-12-01 ongoing - "RADARSAT-1&2 full archive and new tasking products are available in several different beam modes. RADARSAT-1 PRODUCTS The Standard beam mode operates with any one of seven beam positions, referred to as S1 to S7. The nominal incidence angle is 29.1 degrees. The Standard beam mode is the only mode that provides full coverage of the Earth's surface. The Standard beam mode is the only mode that provides full coverage of the Earth's surface. The Standard beam mode is the only mode that provides full coverage of the Earth's surface."
CEOS - FEDEO RADARSAT.SAR.F vNA - ESA/ESRIN

ERS-1/2 SAR IM Medium Resolution L1 [SAR_IMM_1P]
Int'l / Interagency - 1991-07-27 to 2011-07-04 - This ERS Medium Resolution strip-line product is generated from the Image Mode Level 0 product. Strip-line image products contain image data for an entire segment, up to a maximum size of 10 minutes per product for IM mode. The product is generated from the Image Mode Level 0 product.
CEOS - FEDEO SAR_IMM_1P vNA - ESA/ESRIN

Looking for more collections? [Leave IDN's Search Portal](#)

Granule (data file) Discovery

SMOS L3 Sea Ice Thickness

This is Int'l / Interagency Data data. Searches will be performed by external services which may vary in performance and available features. [More Details](#)

Showing 20 of 2,100 matching granules

Granule	START	END	Search Time
SMOS_ice thickness_v3.3_north_20211015.nc	2021-10-15 00:00:00	2021-10-15 23:59:59	3.65
SMOS_ice thickness_v3.3_north_20211016.nc	2021-10-16 00:00:00	2021-10-16 23:59:59	3.65
SMOS_ice thickness_v3.3_north_20211017.nc	2021-10-17 00:00:00	2021-10-17 23:59:59	3.65
SMOS_ice thickness_v3.3_north_20211018.nc	2021-10-18 00:00:00	2021-10-18 23:59:59	3.65
SMOS_ice thickness_v3.3_north_20211019.nc	2021-10-19 00:00:00	2021-10-19 23:59:59	3.65
SMOS_ice thickness_v3.3_north_20211020.nc	2021-10-20 00:00:00	2021-10-20 23:59:59	3.65
SMOS_ice thickness_v3.3_north_20211021.nc	2021-10-21 00:00:00	2021-10-21 23:59:59	3.65
SMOS_ice thickness_v3.3_north_20211022.nc	2021-10-22 00:00:00	2021-10-22 23:59:59	3.65
SMOS_ice thickness_v3.3_north_20211023.nc	2021-10-23 00:00:00	2021-10-23 23:59:59	3.65
SMOS_ice thickness_v3.3_north_20211024.nc	2021-10-24 00:00:00	2021-10-24 23:59:59	3.65
SMOS_ice thickness_v3.3_north_20211025.nc	2021-10-25 00:00:00	2021-10-25 23:59:59	3.65
SMOS_ice thickness_v3.3_north_20211026.nc	2021-10-26 00:00:00	2021-10-26 23:59:59	3.65
SMOS_ice thickness_v3.3_north_20211027.nc	2021-10-27 00:00:00	2021-10-27 23:59:59	3.65
SMOS_ice thickness_v3.3_north_20211028.nc	2021-10-28 00:00:00	2021-10-28 23:59:59	3.65
SMOS_ice thickness_v3.3_north_20211029.nc	2021-10-29 00:00:00	2021-10-29 23:59:59	3.65
SMOS_ice thickness_v3.3_north_20211030.nc	2021-10-30 00:00:00	2021-10-30 23:59:59	3.65
SMOS_ice thickness_v3.3_north_20211031.nc	2021-10-31 00:00:00	2021-10-31 23:59:59	3.65
SMOS_ice thickness_v3.3_north_20211101.nc	2021-11-01 00:00:00	2021-11-01 23:59:59	3.65
SMOS_ice thickness_v3.3_north_20211102.nc	2021-11-02 00:00:00	2021-11-02 23:59:59	3.65
SMOS_ice thickness_v3.3_north_20211103.nc	2021-11-03 00:00:00	2021-11-03 23:59:59	3.65
SMOS_ice thickness_v3.3_north_20211104.nc	2021-11-04 00:00:00	2021-11-04 23:59:59	3.65

Subscriptions [Add](#) [Download All](#) [6,100](#)



IDN Search Portal: Granule Discovery and Download ESA/FedEO SMOS L3 Sea Ice Thickness (continue)

Granule (data file) Order Options

EarthDATA Find a DAAC

CEOS IDNSEARCH

Untitled Project 2.1k Granules 1 Collection 0.0 MB

SMOS L3 Sea Ice Thickness 2.1k Granules Edit Options

1 Select a data access method
The selected access method will determine which customization and output options are available.

☒ **Direct Download**
Direct download of all data associated with the selected granules.
[More Info](#)

2 Configure data customization options
Edit the options below to configure the customization and output options for the selected data product.

No customization options are available for the selected access method.

Click "Edit Options" above to customize the output for each project.

[Download Data](#) Collection 1 of 1 Done

MONTH Sep Oct Nov Dec 2022 Jan Feb Mar Apr

v1.161.5 Search Time: 1.6s NASA Official: Stephen Berrick - FOIA - NASA Privacy Policy - USA.gov

Order Selection Options

EarthDATA Find a DAAC

CEOS IDNSEARCH

Untitled Project 2.1k Granules 1 Collection 0.0 MB

SMOS L3 Sea Ice Thickness 2.1k Granules Edit Options

Showing 20 of 2,100 granules in project

SMOS_icethickness_v3.3_north_20211015.nc	Download
SMOS_icethickness_v3.3_north_20211017.nc	Download
SMOS_icethickness_v3.3_north_20211023.nc	Download
SMOS_icethickness_v3.3_north_20211018.nc	Download
SMOS_icethickness_v3.3_north_20211105.nc	Download
SMOS_icethickness_v3.3_north_20211103.nc	Download
SMOS_icethickness_v3.3_north_20211101.nc	Download
SMOS_icethickness_v3.3_north_20211110.nc	Download
SMOS_icethickness_v3.3_north_20211114.nc	Download
SMOS_icethickness_v3.3_north_20211115.nc	Download
SMOS_icethickness_v3.3_north_20211125.nc	Download
SMOS_icethickness_v3.3_north_20211126.nc	Download
SMOS_icethickness_v3.3_north_20211129.nc	Download

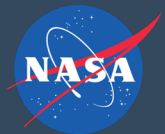
Click "Edit Options" above to customize the output for each project.

[Download Data](#)

MONTH Sep Oct Nov Dec 2022 Jan Feb Mar Apr May Jun Jul Aug

v1.161.5 Search Time: 1.6s NASA Official: Stephen Berrick - FOIA - NASA Privacy Policy - USA.gov

Earthdata Access: A Section 508 accessible alternative



IDN Search Portal: Granule Discovery and Download ESA/FedEO SMOS L3 Sea Ice Thickness (continue)

Granule(s) Download Status

Download Status

This page will automatically update as your orders are processed. The Download Status page can be accessed later by visiting <https://search.earthdata.nasa.gov/portals/ids/download/2134350385> or the [Download Status and History](#) page.

SMOS L3 Sea Ice Thickness

Status: Complete (100%) Access Method: Download Granules: 30 Granules

Download your data directly from the links below, or use the provided download script.

Download Files Download Script

Retrieved 30 files for 30 granules

100%

Copy Save Expand

https://smos-diss.eo.esa.int/oads/data/3_SIT_Open/SMOS_iceThickness_v3_3_north_20211103.nc
https://smos-diss.eo.esa.int/oads/data/3_SIT_Open/SMOS_iceThickness_v3_3_north_20211101.nc
https://smos-diss.eo.esa.int/oads/data/3_SIT_Open/SMOS_iceThickness_v3_3_north_20211110.nc
https://smos-diss.eo.esa.int/oads/data/3_SIT_Open/SMOS_iceThickness_v3_3_north_20211114.nc
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https://smos-diss.eo.esa.int/oads/data/3_SIT_Open/SMOS_iceThickness_v3_3_north_20211108.nc

ES/MSL - NASA Official: Stephen Bernick - FOIA - NASA Privacy Policy - USA.gov

ESA's EO Client

European Space Agency

eo sign in

Earth Online
Contact Us

EO Sign In
Earth Observation sign in and registration

Username
Password

☐ Remember me on this computer

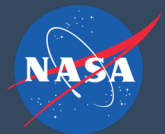
SIGN IN

[Forgot Username or Password ?](#)
[Don't have an account? Register Now](#)

Conditions of use
Terms and conditions
Cookie Notice
Privacy Notice

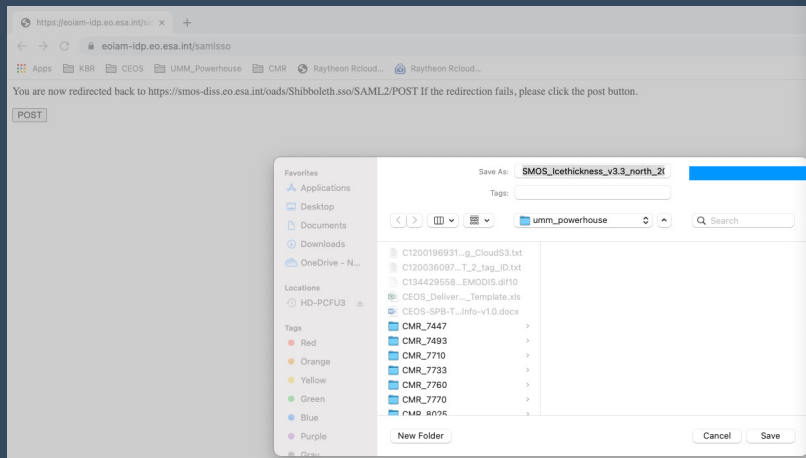
Connect with us
f t

Help
Get Help
FAQ
Complaints

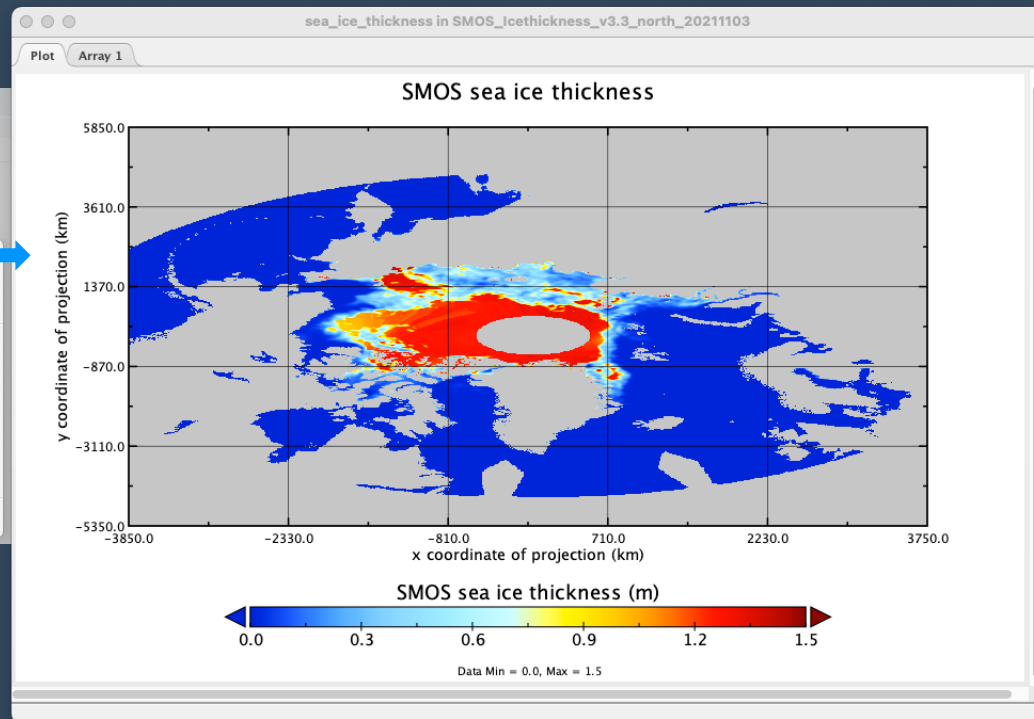


IDN Search Portal: granule discovery and download ESA/FedEO SMOS L3 Sea Ice Thickness (continue)

Direct download from ESA's EO Client



User Display of Data using NASA's Panoply Tool





CMR Tagging replaced by Consortia

What is a Consortium?

- A uniform and simple means to determine whether a dataset belongs to any one of the following agency/agency categorizations/international organizations. The IDN Search Portal displays "badges" below the dataset titles and descriptions in the search results indicating an association with a Consortium.
 - All publicly available CMR Provider IDs were assigned to a Consortium (or multiple Consortia) based upon the Provider's relation to the Consortium

Consortium Names	Descriptions
EOSDIS	Datasets managed by Earth Observing System Data and Information System (EOSDIS).
CWIC	CEOS non-NASA providers' datasets with Granule-level inventory interrogated using Federated OpenSearch through CMR's CEOS WGISS Integrated Catalog (CWIC) infrastructure.
FEDEO	ESA partners' datasets with Granule-level inventory interrogated using Federated OpenSearch through Federated Earth Observation Gateway (FedEO).
CEOS	Datasets from all CEOS Providers including CWIC and FedEO but not NASA EOSDIS.
GEOSS	A dataset is GEOSS Data-CORE-compliant if the data it describes is "free and open".



CMR Tagging replaced by Consortia (Continue)

- All EOSDIS NASA data sets are assumed to be GEOSS Data-CORE-compliant "free and open" and have the Consortium GEOSS *except where indicated by data providers. Provider action is only needed for new EOSDIS data that is not free and open.*
 - GEOSS Data Collection of Open Resources for Everyone (GEOSS Data-CORE): is a distributed pool of documented datasets with full and open unrestricted access at no more than the cost of reproduction and distribution.
- All other IDN Partner data sets are not set to Consortium GEOSS.
- If a dataset is not GEOSS Data-CORE-compliant a new Boolean sub-field "FreeAndOpen" has been added to the Use Constraints field. Action *is* needed if an IDN data set is "free and open" to add it to the GEOSS consortium.

- UMM Example:

```
"UseConstraints": {  
  ...  
  "FreeAndOpenData": false}
```

- DIF-10 Example:

```
<Use_Constraints>  
  ...  
  <Free_And_Open_Data>false</Free_And_Open_Data>  
</Use_Constraints>
```




WGISS-0322-MM 16



Provider IDs and their associated Consortia

- CMR Provider IDs URL: <https://cmr.earthdata.nasa.gov/ingest/providers?pretty=true>

FEDEO Consortium

```
{ "provider-id" : "ESA", ...  
  "consortiums" : "CEOS FEDEO" }  
{ "provider-id" : "FEDEO", ...  
  "consortiums" : "CEOS FEDEO" }
```

CWIC Consortium

```
{ "provider-id" : "ISRO", ...  
  "consortiums" : "CEOS CWIC" }  
{ "provider-id" : "NRSCC", ...  
  "consortiums" : "CEOS CWIC" }
```

...

LPDAAC_ECS Consortium

```
{ "provider-id" : "LPDAAC_ECS", ...  
  "consortiums" : "EOSDIS GEOSS" }  
{ "provider-id" : "PODAAC", ...  
  "consortiums" : "EOSDIS GEOSS" }
```

...

- Why this new Consortium feature will improve identifying CWIC, FedEO, CEOS, NASA EOSDIS, and GEOSS datasets:
 - CMR Tagging is a manual process and can be overwritten and undone with re-ingest; automating consortium assignment via provider reduces human error and makes search results more consistent.
 - CMR Tagging is no longer needed to identify: CWIC, FedEO, and CEOS datasets



CMR Search API Consortiums Queries

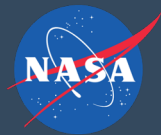
- CMR Search API URL query for associated Consortiums:
 - CWIC (non-NASA) query:
https://cmr.earthdata.nasa.gov/search/collections?consortium=CWIC&page_size=400&pretty=true
 - FedEO query:
https://cmr.earthdata.nasa.gov/search/collections?consortium=FEDEO&page_size=400&pretty=true
 - NASA EOSDIS query:
<https://cmr.earthdata.nasa.gov/search/collections?consortium=eosdis&pretty=true>
 - CEOS query:
<https://cmr.earthdata.nasa.gov/search/collections?consortium=ceos&consortium=eosdis&pretty=true>



CMR/DraftMMT Progressive Update Validation

- DraftMMT and the CMR Ingest API will now permit users to progressively fix errors in existing datasets metadata.
 - Example: in the case where metadata validation rules have evolved since initial ingest and/or fixing all existing dataset record errors may break internal workflows).
 - Applies to existing datasets metadata records only.
 - New dataset metadata records must still meet all validation criteria on ingest.
 - Only subject to fields whose validation status have changed over time/that haven't always been required.
 - Datasets must still pass XML and JSON validation.
 - CMR and DraftMMT validation will not permit introducing additional errors (i.e. CMR and DraftMMT will permit record updates to ingest with errors and warnings, providing the total number of errors at ingest is less than or equal to the total number of errors when editing began).
 - CMR and DraftMMT will provide errors/warning messaging for fields that do not pass validation checks.
 - CMR will log when datasets are updated with remaining errors. Log example:

```
<?xml version="1.0" encoding="UTF-8"?><result><concept-id>C1200xxxxxx-XXXX</concept-id><revision-id>5</revision-id><warnings>After translating item to UMM-C the metadata had the following issue(s): #: required key [ProcessingLevel] not found. #: required key [CollectionProgress] not found.</warnings><existing-errors>Existing Errors entered here.</existing-errors></result>
```



Platform Facets

- Based on an ESDIS Standards Office (ESO) review; Improvements have been made to the GCMD Platform Keywords to help improve the drill down and searches on Platform Facets for the EarthData Search Clients (EDSC), IDN and CWIC Search Portals.
- A new Platform Keyword Top-Level called "Basis" was added to the grouping.
 - 6 new Keywords were added to the "Basis" level:
 - Air-based Platforms
 - Land-based Platform
 - Living Organism-based Platforms
 - Other
 - Space-based Platforms
 - Water-based Platforms



New Platform Facets' Values

- Air-based Platforms
 - Ballons
 - Dropwindsones
 - Jet
 - Propeller
 - Rotorcraft/Helicopter
 - Rockets
 - Sounding Rockets
 - Uncrewed Aerial Vehicles
- Land-based Platform
 - Field Sites
 - Permanent Land Sites
 - Vehicles
- Land-based Platform
 - Field Sites
 - Permanent Land Sites
 - Vehicles
- Land-based Platform
 - Field Sites
 - Permanent Land Sites
 - Vehicles
- Living Organism-based Platforms
 - Living Organism



New Platform Facets' Values (Continue)

- Other

- Charts
- Maps
- Models
- Photographs
- Physical Models
- Reports

- Space-based Platforms

- Earth Observation Satellites
- Interplanetary Spacecraft
- Navigation Satellites
- Solar/Space Observation Satellites
- Space Stations/Crewed Spacecraft

- Water-based Platforms

- Buoys
 - Moored
 - Unmoored
- Fixed Platforms
 - SubSurface
 - Surface
- Vessels
 - SubSurface
 - Surface
- Uncrewed Vehicles
 - SubSurface
 - Surface



GCMD Keywords and Search API URLs

- Keyword grouping structure:
 - Old grouping:
 - Category | **Series_Entity** | Short_Name | Long_Name | UUID
 - New grouping:
 - **Basis** | Category | **Sub_Category** | Short_Name | Long_Name | UUID
 - Series_Entity was changed to Sub_Category.
- CMR Search API (on User Acceptance Test):
https://cmr.uat.earthdata.nasa.gov/search/collections?pretty=true&platforms_h%5B0%5D%5Bbasis%5D=Space-based+Platforms
- CMR Search API (Production) future:
https://cmr.earthdata.nasa.gov/search/collections?pretty=true&platforms_h%5B0%5D%5Bbasis%5D=Space-based+Platforms



Platform Facets Actions Needed

- IDN Metadata providers creating new metadata records will need to use the new "Category" values in the UMM-C/PlatformType "Type" field
 - Validation of records for new "Category" values can be done with CMR ingest API validation feature "Cmr-Validate-Keywords=True"
<https://cmr.earthdata.nasa.gov/ingest/site/docs/ingest/api.html#headers>
 - Support for new "Type" keywords is built in if using DraftMMT to create a new dataset record.
 - Metadata providers updating existing metadata where the "Category" values in the UMM-C/PlatformType "Type" field have changed can update their metadata over time as Progressive Update permits
 - UMM-C JSON examples:

Old Platform Entry

```
{ "Type" : "Aircraft",  
  "ShortName" : "NASA DC-8",  
  "LongName" : "NASA Douglas DC-8",  
  ...} ]  
}
```

New Platform Entry

```
{ "Type" : "Jet",  
  "ShortName" : "NASA DC-8",  
  "LongName" : "NASA Douglas DC-8",  
  ...} ]  
}
```



UMM-C Field Updates (Future)

- OrbitParameters

- Problems:

- Users were not sure how to document measurement units in the Description field(s).
 - No Footprints field to document values.

- Solutions:

- New Orbit unit and Footprint fields were added to the UMM-C schema.

UMM-C JSON example

```
"OrbitParameters" : {  
  "SwathWidth" : 390.0,  
  "SwathWidthUnit" : "Kilometer",  
  "Footprints" : [{  
    "Footprint" : 100,  
    "FootprintUnit" : "Kilometer",  
    "Description" : "The leading footprint."  
  }, {  
    "Footprint" : 150,  
    "FootprintUnit" : "Kilometer",  
    "Description" : "The trailing footprint."  
  }],  
  "Period" : 98.0,  
  "PeriodUnit" : "Decimal Minute",  
  "NumberOfOrbits" : 1,  
  "InclinationAngle" : 98.0,  
  "InclinationAngleUnit" : "Degree",  
  "StartCircularLatitude" : 0,  
  "StartCircularLatitudeUnit" : "Degree"  
},
```

Note: Fields are in ***Bold, Italic*** types and ➡



UMM-C Field Updates (Continue)

- MetadataSpecification
 - Problem:
 - Metadata providers do not have an easy way to recognize which UMM-C schema version was used to encode their dataset metadata records.
 - Solutions:
 - Allows a CMR data provider to easily specify and recognize which UMM-C schema version is being used for a specific dataset record.
 - This will be a required element and all of the sub elements will be required.
 - When using Draft MMT a provider will not see top level MetadataSpecification element as the MMT will fill that in automatically.
 - If records are directly ingested to the CMR element (and all sub-elements) must be provided. If they are not provided the CMR will return errors to the CMR data provider. Already required in DIF-10.

UMM-C JSON example

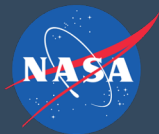
```
"MetadataSpecification": {  
  "URL": "https://cdn.earthdata.nasa.gov/umm/collection/v1.17",  
  "Name": "UMM-C",  
  "Version": "1.17"  
}
```



-
- The screenshot displays the Earthdata Commons search results for the 'GHRSST Level 4 MUR Global Foundation Sea Surface Temperature Analysis (v4.1)'. The interface includes a search bar at the top, a sidebar with filters for Granules, Temporal, Start, End, Recurring?, and Data Access. The main content area shows a list of granules with their IDs, start/end dates, and download links. A map of the Indian Ocean is visible on the right. The bottom of the page shows a timeline of the data from October 2022 to August 2023.



III. IDN Metrics



IDN Homepage Usage

(February 2021 to February 22, 2022)

(<https://idn.ceos.org/>)

Year Overview

Users
19,615

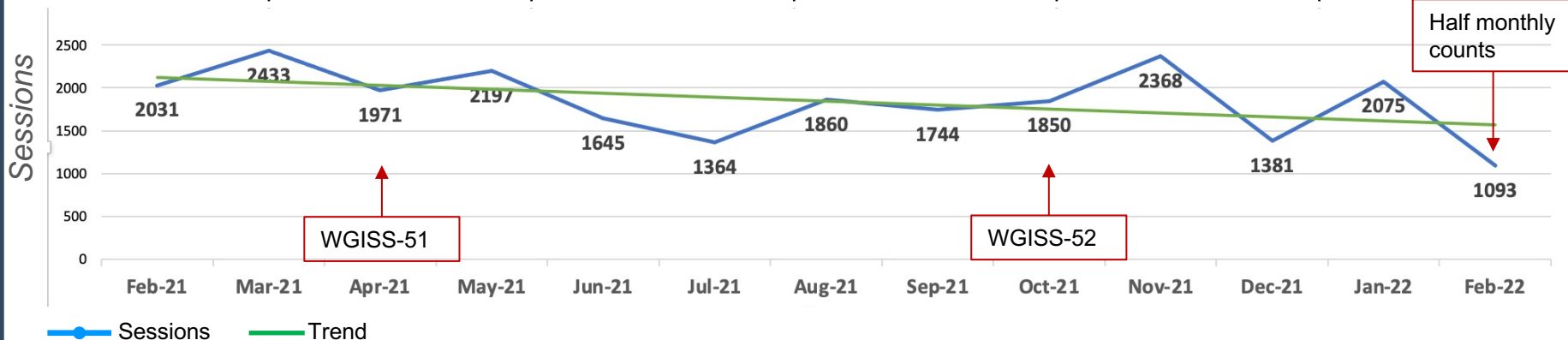
Sessions
24,012

Pageviews
35,103

Pages / Session
1.46

Bounce Rate
00:01:23

Bounce Rate
58.81%



- **User:** An individual person browsing the website.
- **Sessions:** A single visit to the website, consisting of one or more pageviews.
- **Pageviews:** A pageview is reported when a page has been viewed by a user on the website.
- **Pages/Session:** the average number of pageviews in each session.
- **Avg. Session Duration:** how long users are spending on your website.
- **Bounce Rate:** is the percentage of sessions with only one interaction

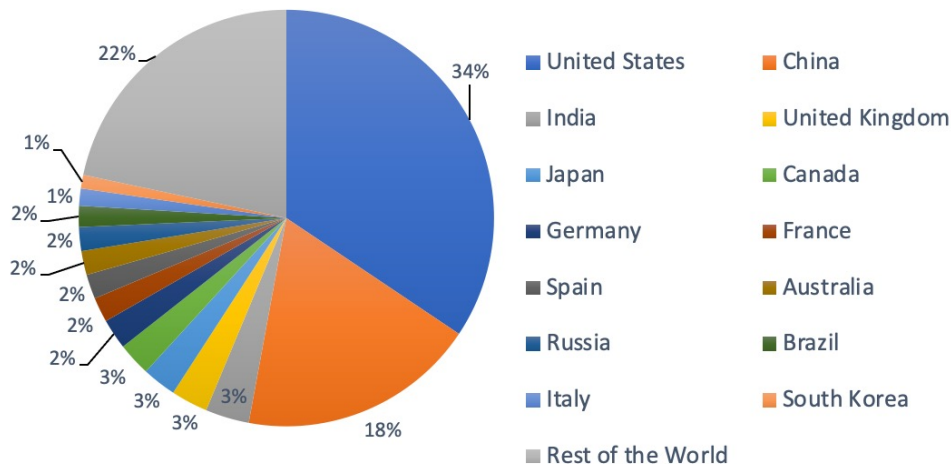


IDN Homepage Usage (continue)

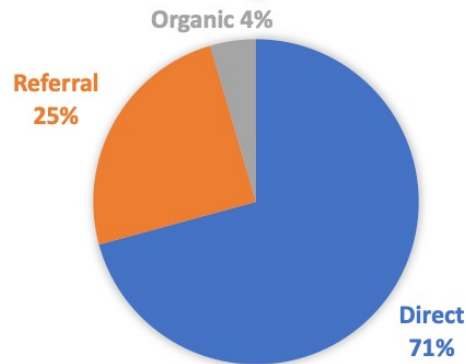
February 2021 to February 22, 2022

<https://idn.ceos.org/>

IDN Sessions by country



How are users finding the IDN?



- **Direct:** includes people who typed your website's URL into their browser or clicked a link in an email application.
- **Referral:** A referral is reported when a user clicks through to your website from another third-party website.
- **Organic:** refers to people clicking on a free link from a search results page. For example, people clicking through to your website from a free result on a Google search results page.



IDN Search Portal Usage

(May 2020 to February 22, 2022)

(<https://search.earthdata.nasa.gov/portal/idn/search>)

Users
10,150

Sessions
12,398

Pageviews
28,161

Pages / Session
2.27

Avg. Session Duration
00:04:33

Bounce Rate
32.29%



GCMD decommission
Links redirected to IDN

WGISS-50:
site's 1st demo

WGISS-51

WGISS-52

Half monthly
Counts (Feb 2022)



IDN Search Portal Usage

(February 2021 to February 22, 2022)

(<https://search.earthdata.nasa.gov/portal/idn/search>)

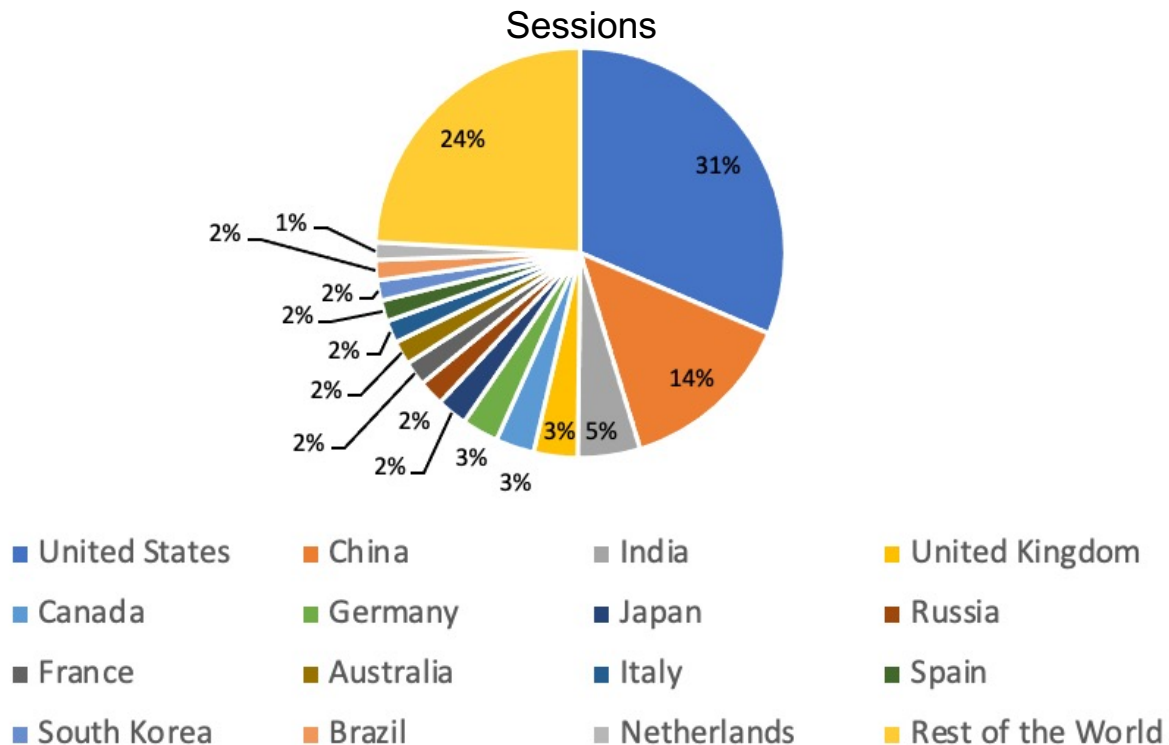
Page	Users	Sessions	Pageviews
search.earthdata.nasa.gov/portal/idn/search	9888	10920	17913
search.earthdata.nasa.gov/portal/idn/search/granules	4216	750	7351
search.earthdata.nasa.gov/portal/idn/projects	796	73	1283
search.earthdata.nasa.gov/portal/idn/search/granules/collection-details	774	128	779
search.earthdata.nasa.gov/portal/idn/downloads	694	123	951
search.earthdata.nasa.gov/portal/idn/search/granules/granule-details	364	17	71
search.earthdata.nasa.gov/portal/idn/preferences	25	1	18
search.earthdata.nasa.gov/portal/idn/contact_info	14	0	4
search.earthdata.nasa.gov/portal/idn/subscriptions	18	0	5
Total	16789	12012	28375



IDN Search Portal Usage

(February 2021 to February 22, 2022)

(<https://search.earthdata.nasa.gov/portal/idn/search>)





Draft MMT Usage

<https://draftmmt.earthdata.nasa.gov>

DraftMMT Usage from September 2021 to February 2022.

User	Unique Login	Total Logins
IDN Metadata Author	32	153

Break down of Drafts created, submitted, and approved.

	Created	Submitted	Approved
New Draft Proposals	62	47	47
Update Collections	37	32	32

- **Draft MMT will only save unsubmitted collection metadata for 30 days.**



Questions

Please provide questions/comments to:

michael.p.morahan@nasa.gov (KBR)

valerie.dixon@nasa.gov (NASA)



Background Slides



Useful Links

- **International Directory Network (IDN)**
 - <https://idn.ceos.org/>
- **International Directory Network (IDN) Search Portal**
 - <https://search.earthdata.nasa.gov/portal/idn/search>
- **EarthData Login**
 - <https://urs.earthdata.nasa.gov/home>
- **Draft MMT**
 - <https://draftmmt.earthdata.nasa.gov/>
 - **Draft Metadata Management Tool (dMMT) User's Guide**
 - <https://wiki.earthdata.nasa.gov/display/CMR/Draft+Metadata+Management+Tool+%28dMMT%29+User%27s+Guide>



Useful Links (continue)

- **GCMD Keywords**

- <https://earthdata.nasa.gov/earth-observation-data/find-data/gcmd/gcmd-keywords>

- **GCMD Keyword Viewer**

- <https://gcmd.earthdata.nasa.gov/KeywordViewer/>

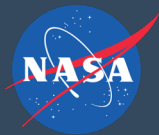
- **New KMS URLs**

- GET Capabilities
 - <https://gcmd.earthdata.nasa.gov/kms/>
- All Science Keyword in CSV format
 - https://gcmd.earthdata.nasa.gov/kms/concepts/concept_scheme/sciencekeywords?case=native&format=csv



Useful Links (continue)

- **UMM-C, UMM-G, UMM-S, UMM-T, UMM-V Documents**
 - <https://wiki.earthdata.nasa.gov/display/CMR/CMR+Documents>
- **CMR Collection Metadata Schemas**
 - <https://git.earthdata.nasa.gov/projects/EMFD>
- **CMR Search API**
 - <https://cmr.earthdata.nasa.gov/search/site/docs/search/api.html>
- **CMR OpenSearch Documentation**
 - <https://cmr.earthdata.nasa.gov/opensearch/home/docs>



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